

AMENDMENT UNDER 37 C.F.R. § 1.115
U.S. APPLN. NO. 07/858,645

rejection raised therein. Accordingly, favorable reconsideration is respectfully requested.

Preliminarily, the Examiner has objected to the title for not being sufficiently descriptive. Applicants have amended the title to read "ON-VEHICLE NAVIGATION APPARATUS WITH AUTOMATIC RE-INITIALIZATION FUNCTION."

Turning to more substantive matters, Claims 1 and 2 are pending in the application. Claims 1 and 2 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Applicants' admissions at pages 1 and 2 of the specification. Claims 1 and 2 have also been rejected under § 112, second paragraph, for the reasons set forth in ¶ 4 of the Office Action. Applicants respectfully traverse the prior art rejection with the arguments set forth below, and hereinabove amend the claims to place the application in better form for further examination. Applicants also add new Claims 3-5 to describe the present invention more fully.

Applicants' invention relates to an on-vehicle navigation apparatus for displaying navigation information. In conventional devices of this type, a map is continually updated around the present vehicle location, and/or the present vehicle location is displayed on a map. The direction and distance to a pre-set destination are indicated. When the vehicle starts towards a new destination, unless the previous destination is erased, the

direction and distance to the previous destination will be computed and displayed instead of the direction and distance to the new destination. The previous destination must therefore be erased manually. In some conventional systems, the previous destination is automatically deleted if the distance to the previous destination becomes equal to or smaller than a predetermined value. Such a system fails in the following two situations. First, if the vehicle is parked far away from the set destination, the destination may not be erased since the distance to the destination may not be equal to or less than the predetermined value. Second, the destination may be erased too early to be of any value if the area in which the destination is located is very dense with buildings, roads, etc.

Applicants' invention overcomes the above deficiencies. Applicants provide a means for detecting the starting of a drive source of the vehicle as a way of ensuring that destination coordinate data is erased neither too early nor too late. Specifically, as illustrated in Figure 1, for example, Applicants provide detector 15 coupled to the starter motor (not shown), which detects the level of voltage supplied to the starter motor. In this way, the detector effectively detects when the engine is started. If a destination is written into random access memory 9 when both a) distance sensor 3 determines that the vehicle is at or closer than a predetermined distance away from its set destination,

and b) the start of the engine is detected, the system is re-initialized and the data stored in RAM 9 is erased. By utilizing such a system, destination data will not be erased too early (i.e., when the distance between the vehicle and the present destination is less than a predetermined value if the predetermined value is set too high for a particularly dense area), since it requires the operator to have already arrived, shut off the vehicle, and restart it for departure. The destination data will also not fail to be erased if the vehicle is parked far away from the destination, as the predetermined distance value can be set rather high without fear of the destination data being erased prematurely, since it would only be erased after the engine has been shut off and then restarted.

The Examiner maintains that the present invention is anticipated by the admitted prior art. Applicants respectfully disagree, and submit that there is at least one feature of the present invention that is not disclosed, taught, or suggested in Applicants' "Background of the Invention". Specifically, the Examiner states that Applicants admit, as prior art, detection means, means for acquiring, means for computing, discriminating means, and means for erasing, and further states that means for detecting the start of a drive source such as an engine is inherent in a vehicle. While it may be true, *arguendo*, that a means for detecting the start of a drive source is inherent in a conventional

AMENDMENT UNDER 37 C.F.R. § 1.115
U.S. APPLN. NO. 07/858,645

vehicle, it is by no means indicated anywhere in the description of the related art that the drive source start detecting means is inherent in or coupled to a conventional on-vehicle navigation apparatus. Such a feature was first disclosed by Applicants in the present application. Further, Claim 1 (as amended herein) specifically recites

means for erasing said destination coordinate data from said memory when said computed distance is judged to be not greater than said predetermined value upon generation of said start detection signal...

That is, there is no teaching in the admitted prior art of coupling a means for detecting the start of a drive source to a means for erasing destination coordinate data so that the destination coordinate data is erased upon generation of a start detection signal. Since this feature is missing from the admitted prior art, Applicants respectfully submit that the claims pass muster under § 102.

As mentioned above, the admitted prior art does not include the claimed drive source start detecting means or the means for erasing said destination coordinate data. In this regard, the Examiner implies that it would have been obvious to modify the admitted prior art to include a means for detecting the start of a drive source, thereby rendering the claims unpatentable. Such an analysis is more appropriate for a rejection under 35 U.S.C. § 103.

AMENDMENT UNDER 37 C.F.R. § 1.115
U.S. APPLN. NO. 07/858,645

However, Applicants submit that Claims 1 and 2 are not obvious with respect to Applicants' admitted prior art under § 103.

The Examiner has failed to cite any reference that even identifies the problems attendant in the prior art systems, let alone any suggestion to modify the prior art systems in the manner proposed by Applicants. The admitted prior art suffers from the problem of either requiring manual erasure of old destination data, or of an inability to automatically delete old destination data in an accurate fashion. This problem has been identified by Applicants. It is here proposed for the first time to couple the start of the drive source to an on-board navigation system for erasing old destination data when the engine is started if the distance between the vehicle and the destination is less than or equal to a predetermined value. Again, Applicants were the ones who devised this solution to this problem. Given the fact that the Examiner has failed to cite any prior art references which even address the problems attendant with the prior art devices, let alone solve these problems with the specific destination coordinate data erasing means defined in the claims, Applicants respectfully submit that the Examiner has not demonstrated a *prima facie* case of obviousness. That is, Applicants submit that the Examiner has failed to demonstrate any suggestion for the proposed modification.

In fact, the Examiner gives no motivation for this modification. Rather, the Examiner simply states that "means for

detecting start of a drive source such as an engine...is inherent in a vehicle." In making this statement, the Examiner is using impermissible hindsight in modifying the admitted prior art.

The basis for direction in the prior art to make the asserted modification must rest on some indication of the desirability of making the modification. The mere fact that the prior art could be so modified does not make the modification obvious unless the prior art itself suggests the desirability of the modification. In *re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984). The Federal Circuit has, on numerous occasions made this point clear. For example, the court stated in *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 USPQ 929 (Fed. Cir. 1984) that:

obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under § 103, teachings of references can be combined only if there is some suggestion or incentive to do so.

ACS Hospital Systems, at 932-933.

Applying the above statement of law to the present application, Applicants were the first to discover that a problem existed in conventional on-vehicle navigation systems, and this problem was first described in the present application. Similarly, Applicants were the first to identify that this problem can be corrected by adding a detecting means for detecting the starting of the drive source of the vehicle, and erasing the old destination

data when the vehicle is started within a certain distance of the old destination. This solution, resulting in the claimed invention, also first appears in the present application. To properly present a *prima facie* of obviousness, the Examiner would have to demonstrate that the admitted conventional systems suggest the desirability for making such a modification.

This the Examiner has not done. Applicants submit that the Examiner has merely used the teachings of Applicants against Applicants, resulting in an impermissible hindsight reconstruction of the claimed invention. This practice has repeatedly been held to violate obviousness requirements under § 103. There must be a reason or suggestion in the art for making a modification, other than the knowledge obtained from Applicants' disclosure. *In re Dow Chemical*, 5 USPQ2d 1529, 1532 (Fed. Cir. 1988) (citing *Interconnect Planning Corporation v. Feil*, 227 USPQ 543, 551 (Fed. Cir. 1985)), *ACS Hospital Systems*, supra, at 932.

Since the Examiner has failed to show that the admitted prior art itself suggests the modification of the conventional system with a drive source start detecting means as described above, Applicants respectfully submit that the Examiner has failed to meet his burden of establishing a *prima facie* case for obviousness. Unless the Examiner can point to teachings other than those of Applicants, i.e., references which address the problems attendant

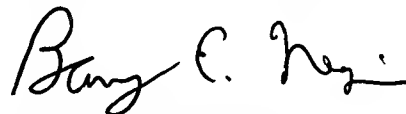
AMENDMENT UNDER 37 C.F.R. § 1.115
U.S. APPLN. NO. 07/858,645

with the admitted devices, the Examiner has failed to demonstrate proper motivation for the proposed modification.

In view of the foregoing, Applicants submit that Claims 1-5, all the claims presently pending in the application, are in condition for allowance. Therefore, it is respectfully requested that the subject application be passed to issue at the earliest possible time. The Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



Barry E. Negrin
Reg. No. 37,407

SUGHRUE, MION, ZINN, MACPEAK
& SEAS
2100 Pennsylvania Avenue, N.W.
Washington, D.C. 20037
(202) 293-7060

Date: April 13, 1994